

REMARKS

Claims 1-11, 13-24, 26, 27, 29 and 31 are pending in the present Application. Claims 1, 13, 20, 22, 24, 26 and 29 are written in independent form. By this Amendment, claim 12 is cancelled without prejudice or disclaimer. Claims 25, 28 and 30 were previously cancelled. Claims 1, 13, 20, 22, 24, 26 and 29 are amended and new claim 31 is added. Support for the amendments may be found at least at paragraph [0066] of the published application. Thus, no new matter is added.

Claim Objections

Claim 1-12 are objected to due to a typographical error in claim 1. Claim 1 is amended to correct the error.

35 USC §112

The Examiner makes remarks pertaining to certain language in claims 20 and 26 regarding "means-plus-function". As there are no rejections pertaining to the claim language, there is no response to the remarks. Further, as claims 20 and 26 are amended, the remarks are moot.

Rejection under 35 USC §103

Claims 1-24, 26, and 27 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent Publication 2002/0168618 to Anderson ("Anderson") in view of U.S. Patent 6,929,481 to Alexander ("Alexander") and further in view of U.S. Patent 5,987,960 to Messner ("Messner"). As claim 12 is cancelled, the rejection of that claim is moot. The rejection of the remaining claims is respectfully traversed.

In rejecting the claims it is admitted that Anderson fails to disclose or suggest a

fourth instruction set for controlling movements of a number of serially arranged and interconnected carriages corresponding to movements of said instruments in said interface unit, each carriage comprising members to receive and lock at least one of the instruments, and members for receiving a movement from an instrument dummy and generating a force fed back to the instrument dummy with respect to a simulation characteristic, a detecting arrangement for detecting the type of the instruments inserted through an interconnecting member, means to provide the movement of each carriage and regulate the movement by means of a speed regulator and a distance regulator, a crank block, arranged on a torque wheel, and an outlet, which is provided with a detecting member, configured to detect presence of at least one instrument in the carriage, said detecting member being arranged to detect the thickness of each instrument.

In an effort to overcome the admitted deficiency, it is alleged that one of skill in the art would have modified Anderson the system of Anderson according to the teachings of Alexander. Specifically, it is alleged that one of skill would have modified Anderson to include the interface device for accommodating and controlling nested instruments as described at column 22, lines 5-18 of Alexander.

The cited section of Alexander relates to an interface device that accommodates nested and/or independently inserted instruments. The interface device includes a base 700 for receiving frame 504 and its associated components, and a cover 704. The cover proximal portion typically includes openings or mock orifices 712 of a simulated anatomy (not shown), typically mounted on a platform 702, to enable instruments to be inserted into the interface device. The platform 702 generally includes openings 714 defined in the plate coincident orifices 712 to enable insertion of instruments into the interface device. Tubes 502 extend from orifices 712 to guide the instruments into the

interface device. The actuators and pulleys enable the carriage assemblies to provide force feedback to the particular instrument engaged by that assembly in substantially the same manner described above for carriage assembly 520 (see Figs 12 and 15).

However, Anderson has force feedback devices (see Figs. 7a, 7b) that are specifically designed to work with the device. Therefore, it is unclear why or how one of skill in the art would modify the interface 5 (which is housed in the manikin 6) to include the device of Alexander. In other words, as there is no problem indicated with the device of Anderson, there is no motivation or suggestion to modify according to Alexander. Although Anderson was well aware of the teachings of Alexander (see paragraph [0010]), Anderson does not use the interface device and method of Alexander. As such, there is no motivation or suggestion to modify Anderson according to the teachings of Alexander.

Moreover, the rejected independent claims are amended to include an instruction set for modeling a color agent which calculates behavior of said color agent and keeps track of a position currently having enough concentration of contrast to be visualized, or a method or system for implementing the instruction set.

Because neither Anderson nor Alexander, whether considered alone or in combination, disclose or suggest the additional features recited in the amended claims, the rejection of the pending claims should be withdrawn.

Claim 29 is rejected under 35 USC §103(a) as being unpatentable over Alexander in view of Messner. The rejection is respectfully traversed.

In rejecting the claim, it is alleged that Alexander discloses a detecting arrangement for detecting the type of the instruments inserted through an interconnecting member at column 6, lines 55-63 and column 22, lines 598-67.

However, Alexander discloses only detecting manipulation of an instrument. There does not appear to be disclosure of detecting the type of instrument. As such, the combination of references fails to render the claim obvious.

Moreover, independent claim 29 is amended to recite a method of testing new tools for an interventional procedures, prototyping a real nested interventional procedure tool...measuring usability of new features related to said prototyped tool, and comparing results to predefined values and providing objective measurements on interactions between a user and the prototyped tool.

As neither Alexander nor Messner, whether considered alone or in combination, disclose or suggest the additional features, withdrawal of the rejection is requested.

CONCLUSION

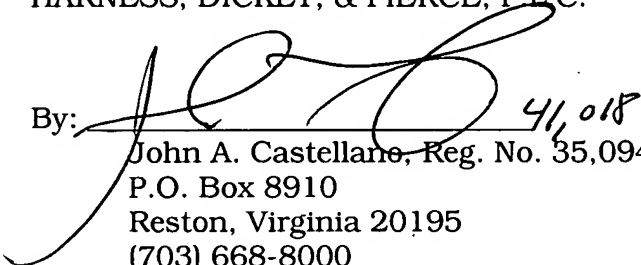
In view of the above, Applicant earnestly solicits reconsideration and allowance of all of the pending claims.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
HARNES, DICKEY, & PIERCE, P.L.C.

By:

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